

IN THE CLAIMS

1. (Currently Amended) A disposable fluid circuit ~~kit~~ for use in extracorporeal blood treatment systems that supply replacement fluid to a patient, comprising:

a fluid circuit having a blood portion for carrying blood, a filtrate portion connectable across a porous membrane to said blood portion, and

a replacement fluid portion connectable to a supply of replacement fluid;

a sterilizing filter in said replacement fluid portion,

said sterilizing filter having a pore size effective to eliminate pyrogens from a fluid passing therethrough;

said replacement fluid portion having a plurality of connectors joined at a junction to flow through said sterilizing filter into a common inlet to the replacement fluid portion ~~with no intervening pumping portions between the junction and the sterilizing filter ;~~

each of the plurality of connectors being connected to a respective one of multiple replacement fluid containers whose total content equals at least 8 liters of replacement fluid, each of the replacement fluid containers containing the same replacement fluid.

2. (Canceled)

3. (Currently Amended) A circuit ~~kit~~ as in claim 1, further comprising a cartridge configured to support said sterilizing filter, and the blood, filtrate, and replacement fluid portions.

4. (Canceled)

5. (Currently Amended) A circuit ~~kit~~ as in claim 1, wherein said plurality of connectors includes a plurality of bag spikes.

6. (Currently Amended) A circuit ~~kit~~ as in claim 1, wherein said sterilizing filter is in an in-line configuration such that all fluid passing through said replacement fluid portion is filtered thereby; and there being no flow regulating portion of the .

7. (Currently Amended) A circuit ~~kit~~ as in claim 1, further comprising respective pumping portions in said filtrate, blood, and replacement fluid portions each configured to engage with a respective pump actuator to move respective fluids through said each.

8. (Currently Amended) A circuit ~~kit~~ as in claim 7, further comprising a supporting cartridge tray configured to align said pumping portions in respective positions to allow them to engage with respective pump actuators.

9. (Currently Amended) A disposable fluid circuit ~~kit~~ for use in extracorporeal blood treatment systems that supply replacement fluid to a patient, comprising:

a fluid circuit mounted in a cartridge;
said fluid circuit including a blood circuit portion connected to a filter, a replacement fluid circuit portion connected to said blood circuit portion, and a waste circuit portion connected to said filter;

the waste fluid circuit having multiple connectors joined to a common line that feeds replacement fluid to the blood circuit, the common line being a part of the replacement fluid portion;

each of the multiple connectors being connected to a respective one of multiple replacement fluid containers, each of which contains sterile replacement fluid effective to restore a normal electrolyte balance of human blood;

a sterilizing filter in said replacement fluid portion, said sterilizing filter having a pore size effective to eliminate pyrogens from a fluid passing therethrough;

said sterilizing filter being located in an in-line configuration such that all replacement fluid passing into said blood circuit portion must pass through a membrane thereof.

10. (Currently Amended) A circuit kit as in claim 9, further comprising:

a connector in said blood circuit portion for connecting a venous line of said blood circuit portion to a patient access;

said sterilizing filter being located between said source of replacement fluid and said blood circuit portion;

said replacement fluid circuit portion being connected to said venous line.

11. (Canceled)

12. (Currently Amended) A circuit kit as in claim 9, wherein said cartridge includes a tray shaped element to support said blood, filtrate, and replacement fluid circuit portions.

13. (Canceled)

14. (Currently Amended) A circuit kit as in claim 9, wherein said plurality includes a plurality of bag spikes.

15. (Canceled)

16. (Currently Amended) A circuit kit as in claim 9, further comprising respective pumping portions in said filtrate, blood, and replacement fluid circuit portions that are configured to engage with respective pump actuators to move respective fluids therethrough.

17. (Currently Amended) A circuit kit as in claim 16, further comprising a supporting cartridge tray configured to align said pumping portions in respective positions to allow them to engage with pump actuators.

18. (Currently Amended) A disposable fluid circuit kit for use in extracorporeal blood treatment systems that supply replacement fluid to a patient, comprising:

a fluid circuit with a support;

said fluid circuit including arterial and venous blood lines connectable to a patient access at access ends thereof and connectable to a filter at filter ends thereof;

said fluid circuit including a replacement fluid line with an input end connectable to a replacement fluid supply and an output end connected to said venous blood line;

said replacement fluid line having an inline sterile filter between said input and output ends configured such that all fluid passing from said input end to said output end passes through a membrane effective to block pyrogens;

wherein said input end of said replacement fluid line has a branching connector with multiple ends for connection connected to multiple fluid sources of a same infusible replacement fluid.

19. (Currently Amended) A circuit kit claim 18, wherein said membrane as a pore size of approximately 0.2 micron.

20. (Canceled)

21. (Currently Amended) A circuit kit as in claim 18, wherein said fluid circuit is supported in a cartridge that includes a tray shaped element to support said blood, filtrate, and replacement fluid circuit portions.

22. (Currently Amended) A circuit kit as in claim 18, wherein said plurality includes a plurality of bag spikes.

23. (Currently Amended) A circuit kit as in claim 18, wherein said fluid circuit is supported in a cartridge that includes a tray shaped element to support said blood, filtrate, and replacement fluid circuit portions.

24. (Currently Amended) A circuit kit as in claim 18, further comprising respective pumping portions in said filtrate, blood, and replacement fluid lines that are configured to engage with respective pump actuators to move respective fluids therethrough.

25. (Currently Amended) A circuit kit as in claim 24, further comprising a supporting cartridge tray configured to align said pumping portions in respective positions to allow them to engage with pump actuators.

26. (Currently Amended) A disposable fluid circuit kit for use in extracorporeal blood treatment systems that supply replacement fluid to a patient, comprising:

a fluid circuit with a blood processing filter and a fluid input connector for receiving treatment fluid;

a filtration set attached to the fluid input connector, the filtration set including a sterilizing filter connected to and an array of multiple connector leads that can be connected to respective fluid bags;

there being no ~~intervening pumping flow regulating~~ portions between the connector leads and the sterilizing filter.

27. (Currently Amended) A circuit kit as in claim 24, wherein the connector leads are connected to the sterilizing filter by tubing and each of the connector leads is connected by substantially the same length of tubing as other s of the connector leads.

28. (Currently Amended) A circuit kit as in claim 24, wherein the filtration set has a connector to connect it to the input connector.

29. (Currently Amended) A circuit kit as in claim 24, wherein the array of multiple connector leads are configured to feed into a common line which, the sterilizing filter being positioned inline in the common line, the common line being connected to the fluid input.

30. (New) A circuit as in claim 1, wherein the only intervening flow regulating device between each of the multiple connectors and the blood portion is a single pumping portion between the blood portion and the junction.